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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/027,764	12/19/2001	Thomas F. Look	57378US002	3744
32692	7590	10/28/2003	EXAMINER	
3M INNOVATIVE PROPERTIES COMPANY			LABAZE, EDWYN	
PO BOX 33427			ART UNIT	
ST. PAUL, MN 55133-3427			PAPER NUMBER	
			2876	

DATE MAILED: 10/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/027,764	LOOK, THOMAS F.	
	Examiner	Art Unit	
	EDWYN LABAZE	2876	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 September 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2 and 4-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                              | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                     | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>10162003</u> . | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION**

1. Receipt is acknowledged of amendments filed on 9/25/2003.
2. Claims 1-2, and 4-12 are presented for examination.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-2, 5-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bantli et al. (U.S. 5,621,571) in view of Diprizio et al. (U.S. 6,384,727).

Bantli et al. disclosed integrated retro-reflective electronic display, which includes a retro-reflective article or sheet 30 having an optical article and a reflective layer 36 (col.5, lines 30-48); wherein the optical layer 32 includes an optical surface 31, an opposite rear surface 38/48, and a structure surface 37/48 coextensive with one of the optical surface 31 and rear surface (See Figs. # 2 and 6; col.5, lines 42+; col.6, lines 30+); a radio frequency-responsive element including an antenna 8 and an integrated circuit/electronic module 10 (col.7, lines 5+), the radio frequency-responsive or radiating element having information storage and transmission capabilities adapted to enable an interrogation system to obtain information from the radio frequency-responsive element (col.7, lines 25-67 and col.8, lines 1-23); and wherein the radio frequency-responsive/radiating element is coupled to one of the optical surface or rear surface of the retro-reflective article (See Fig. # 8a of Bantli et al.), and wherein the reflective layer/coating

46 is a non contiguous or discontinuous metallized layer deposited on at least a portion of the structured rear surface of the optical article (col.6, lines 55-67 and col.7, lines 1+).

Banti et al. fails to teach metallized ink disposed on at least a portion of the structured surface of the optical article.

Diprizio et al. discloses capacitively powered radio frequency identification device, which includes metallized ink disposed on at least a portion of the structured surface of the optical article (col.3, lines 50+).

In view of Diprizio et al.'s teaching, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to employ silver metal ink as compare to aluminum metallic layer onto the teachings of Banti et al. so as to improve the conductivity of the reflective sheeting. Furthermore, these materials as well known in the art, are alternatively equivalent and serve the same purpose as semi-conductive material or non-contiguous elements. Moreover, such modification would have been an obvious extension as taught by Brantli et al. and an obvious expedient.

Re claim 6: Brantli et al. discloses an apparatus, wherein the optical article includes glass microspheres 32, 42 embedded in a spacing resin, and wherein the optical surface (See Figs. # 2 and 6 of Brantli et al.) and rear surface are formed from the spacing resin 47 (col.6, lines 30-50).

Re claim 7: Brantli et al. teaches an apparatus, wherein the reflective layer 36, 46 is deposited directly on at least portions of the spacing resin 44 (col.6, lines 30+).

Re claim 8: Brantli et al. discloses an apparatus, further comprising security indicia 52 disposed on the optical article (See Fig. # 8a of Brantli et al.; and col.7, lines 50+).

5. Claims 4 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brantli et al. (U.S. 5,621,571) as modified by Diprizio et al. (U.S. 6,384,727) in view of Mochida et al. (U.S. 6,317,149).

The teachings of Brantli et al. as modified by Diprizio et al. have been discussed above.

Brantli et al. as modified by Diprizio et al. fails to disclose a tag, wherein the reflective layer has metal content of about 10% to 14% by volume.

Mochida et al. lamination transfer object producing apparatus and method, which includes metallized ink of about 10% to 40 % by volume (col.14, lines 30+).

In view of Mochida et al.'s teaching, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to utilize a silver metal ink, spray or coating laminated on the reflected layer(s) for better and brighter reflections and color diffusions. Furthermore, a metal content of 10% to 14% by volume is designed to reduce cost, control how incident light is directed toward the light source, and increase the reflectivity of the article. Therefore such modification would have been an obvious extension as taught by Brantli et al. as modified by Diprizio et al., therefore and an obvious expedient.

#### ***Response to Arguments***

6. Applicant's arguments with respect to claims 1 and 9 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Eberhardt et al. (U.S. 6,107,920) radio frequency identification tag having article integrated antenna.

Eberhardt et al. (U.S. 6,130,613) teaches radio frequency identification stamp and radio frequency identification mailing label.

Vega et al. (U.S. 6,147,605) discloses method and apparatus for an optimized circuit for an electrostatic radio frequency identification tag.

Vega et al. (U.S. 6,252,508) discloses radio frequency identification tag arranged for magnetically storing tag state information.

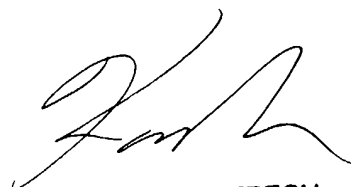
Atherton et al. (US 2002/0036237) teaches material and construction for a tamper indicating radio frequency identification label.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to EDWYN LABAZE whose telephone number is (703) 305-5437. The examiner can normally be reached on 7:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on (703) 305-3503. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

el  
Edwyn Labaze  
Patent Examiner  
Art Unit 2876  
October 16, 2003



KARL D. FRECH  
PRIMARY EXAMINER